OIPE JC#
JUN 21 2004
PATENT & TRADEMARK OFFICE

JFW

Docket No. 235752US-20

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: Hidetaka ARIMURA, et al.

SERIAL NO: 10/767,342 GAU:

FILED: January 30, 2004 EXAMINER:

FOR: AUTOMATED METHOD AND SYSTEM FOR THE DETECTION OF LUNG NODULES IN LOW-DOSE CT IMAGE FOR LUNG-CANCER SCREENING

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

Applicant(s) wish to disclose the following information.

REFERENCES

■ The applicant(s) wish to make of record the references listed on the attached form PTO-1449. Copies of the listed references are attached, where required, as are either statements of relevancy or any readily available English translations of pertinent portions of any non-English language references.

☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

RELATED CASES

☐ Attached is a list of applicant's pending application(s) or issued patent(s) which may be related to the present application. A copy of the patent(s), together with a copy of the claims and drawings of the pending application(s) is attached along with PTO 1449.

☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

CERTIFICATION

☐ Each item of information contained in this information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.

☐ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.

DEPOSIT ACCOUNT

■ Please charge any additional fees for the papers being filed herewith and for which no check or credit card payment is enclosed herewith, or credit any overpayment to deposit account number 15-0030. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

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Form PTO 1449 (Modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY DOCKET NO. 235752US-20	SERIAL NO. 10/767,342
LIST OF REFERENCES CITED BY APPLICANT	APPLICANT Hidetaka ARIMURA, et al.	
	FILING DATE January 30, 2004	GROUP

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						
	AL						
	AM						
	AN						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	TRANSLATION NO
	AO					
	AP					
	AQ					
	AR					
	AS					
	AT					
	AU					
	AV					

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

	AW	Masahiro Kaneko, et al., "Peripheral Lung Cancer: Screening and Detection with Low-Dose Spiral CT Versus Radiography," Radiology 201, 798-802 (1996).
	AX	Shusuke Sone, et al., "Mass Screening for Lung Cancer with Mobile Spiral Computed Tomography Scanner," Lancet 351, 1242-1245 (1998).
	AY	Stefan Diederich, et al., "Pulmonary Nodules: Experimental and Clinical Studies at Low-Dose CT," Radiology 213, 289-298 (1999).
	AZ	Claudia I. Henschke, et al., "Early Lung Cancer Action Project: Overall Design and Findings form Baseline Screening," Lancet 354, 99-105 (1999).

■ Additional References sheet(s) attached

Examiner	Date Considered

*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

	AAA	Takeshi Nawa, et al., "Lung Cancer Screening Using Low-Dose Spiral CT: Results of Baseline and 1Year Follow-up Studies," Chest 122, 15-20 (2002).
	AAB	Shinji Yamamoto, et al., "Image Processing for Computer-Aided Diagnosis of Lung Cancer by CT (LSCT)," Systems and Computers in Japan 25, 67-79 (1994).
	AAC	Y. Ukai, et al., "Computer Aided Diagnosis System for Lung Cancer Based on Retrospective Helical CT Image," Proc. SPIE 3979, 1028-1039 (2000).
	AAD	Samuel G. Armato III., et al., "Computerized Detection of Pulmonary Nodules on CT Scans," RadioGraphics 19, 1303-1311 (1999).
	AAE	Samuel G. Armato III., et al., "Automated Detection of Lung Nodules in CT Scans: Preliminary Results," Med. Phys. 28, 1552-1561 (2001).
	AAF	Samuel G. Armato III., et al., "Lung Cancer: Performance of Automated Lung Nodule Detection Applied to Cancers Missed in a CT Screening Program," Radiology 225, 685-692 (2002).
	AAG	Dag Wormanns, et al., "Automatic Detection of Pulmonary Nodules at Spiral CT: Clinical Application of a Computer-Aided Diagnosis System," Eur. Radiol. 12, 1052-1057 (2002).
	AAH	Metin N. Gurcan, et al., "Lung Nodule Detection on Thoracic Computed Tomography Images: Preliminary Evaluation of a Computer-Aided Diagnosis System," Med. Phys. 29, 2552-2558 (2002).
	AAI	Matthew S. Brown., et al., "Lung Micronodules: Automated Method for Detection at Thin-Section CT - Initial Experience," Radiology 226, 256-262 (2003).
	AAJ	Maryellen Lissak Giger, et al., "Image Feature Analysis and Computer-Aided Diagnosis in Digital Radiography: Automated Detection of Nodules in Peripheral Lung Fields," Med Phys. 15, 158-166 (1988).
	AAK	Xin-Wei Xu, et al., "Development of an Improved CAD Scheme for Automated Detection of Lung Nodules in Digital Chest Images," Med. Phys. 24, 1395-1403 (1997).
	AAL	Feng Li, et al., "Lung Cancers Missed at Low-Dose Helical CT Screening in a General Population: Comparison of Clinical, Histopathologic, and Imaging Findings," Radiology 225, 673-683 (2002).
	AAM	Kenji Suzuki, et al., "Massive Training Artificial Neural Network (MTANN) for Reduction of False Positives in Computerized Detection of Lung Nodules in Low-Dose Computed Tomography," Med, Phys., 1602-1617 (2003).
	AAN	Kenji Suzuki, et al., "Effect of a Small Number of Training Cases on the Performance of Massive Training Artificial Neural Network (MTANN) for Reduction of False Positives in Computerized Detection of Lung Nodules in Low-Dose CT," SPIE Proc. 5032, 1355-1366 (2003).
	AAO	Masahito Aoyama, et al., "Automated Computerized Scheme for Distinction Between Benign and Malignant Solitary Pulmonary Nodules on Chest Images," Med Phys. 29, 701-708 (2002).
	AAP	Berkman Sahiner, et al., "Computerized Characterization of Masses on Mammograms: The Rubber Band Straightening Transform and Texture Analysis," Med. Phys. 24, 516-526 (1998).
	AAQ	

Examiner	Date Considered

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